

U.S. Serial No. 10/078,347

NIP-256

radiation control values as the upper limit values for a radiation dose of the a reducing decontamination agent stored inside, said multiple reducing decontamination tanks including a first reducing decontamination tank and a second reducing decontamination tank;

wherein said second reducing decontamination tank has a radiation control value that is higher than that of said first reducing decontamination tank;

a carrier for immersing said metal member into said multiple reducing decontamination tanks and a washing tank;

a carrier for taking out said metal member from said second reducing decontamination tank and placing said metal member in said first reducing decontamination tank;

a tube for transferring into the second reducing decontamination tank where said radiation control value is the second value which is higher than said first value, the reducing decontamination agent in the first reducing decontamination tank where said radiation control value is the first value into the second reducing decontamination tank;

a first reducing agent decomposer for decomposing a component contained in the reducing decontamination agent of the reducing decontamination tank where said radiation control value is the highest out of the reducing decontamination tanks connected by said tube; and

a washing tank for washing said reducing decontamination

U.S. Serial No. 10/078,347

NIP-256

agent deposited on said decontaminated metal member.

2. (Currently Amended) A radioactive substance decontamination apparatus according to Claim 1, further characterized by comprising a second reducing decontamination agent decomposer for decomposing reducing decontamination agent in the a reducing decontamination tank to which said tube is not connected.

3. (Currently Amended) A radioactive substance decontamination apparatus, comprising:

multiple reducing decontamination tanks having different radiation control values as the upper limit values for a radiation dose of the a reducing decontamination agent stored inside, said multiple reducing decontamination tanks including a first reducing decontamination tank, a second reducing decontamination tank, and a third reducing decontamination tank;

wherein said second reducing decontamination tank has a radiation control value that is higher than that of said first reducing decontamination tank, and said third reducing decontamination tank has a radiation control value that is higher than that of said second reducing decontamination tank;

a first tube for transferring into the second reducing

U.S. Serial No. 10/078,347

NIP-256

~~decontamination tank where said radiation control value is the second value which is higher than said first value, the reducing decontamination agent in the first reducing decontamination tank where said radiation control value is the first value out of said multiple reducing decontamination tanks into the second reducing decontamination tank;~~

~~a second tube for transferring into the third reducing decontamination tank where said radiation control value is the third value which is higher than said second value, the reducing decontamination agent in said second reducing decontamination tank into the third reducing decontamination tank;~~

~~a reducing agent decomposer for decomposing reducing decontamination agent of said third reducing decontamination tank;~~

~~a washing tank for washing said reducing decontamination agent deposited on said decontaminated metal member, and a carrier for immersing said metal member from said multiple reducing decontamination tanks and washing tank.~~

~~a carrier for transferring said metal member from said third reducing decontamination tank into said second reducing decontamination tank, and said metal member from said second reducing decontamination tank into said first reducing decontamination tank.~~

U.S. Serial No. 10/078,347

NIP-256

4. (Currently Amended) A radioactive substance decontamination apparatus according to Claim 1 further comprising an oxidizing decontamination tank for said for decontaminating a metal member using oxidizing decontamination agent, said radioactive substance decontamination apparatus further characterized in that said carrier immerses said metal member in said oxidizing decontamination tank while carrying said metal member from the reducing decontamination tank where said radiation control value is the highest out of said reducing decontamination tanks, to the reducing decontamination tank where said radiation control value is the second highest out of said reducing decontamination tank, contaminated by a radioactive substance using a reducing decontamination agent, comprising:

multiple reducing decontamination tanks having different radiation control values as the upper limit values for a radiation dose of a reducing decontamination agent stored inside;

said multiple reducing decontamination tanks including a first reducing decontamination tank and a second reducing decontamination tank, wherein said second reducing decontamination tank has a radiation control value that is higher than that of said first reducing decontamination tank;

a first tube for transferring, into the second reducing decontamination tank where said radiation control value is the

U.S. Serial No. 10/078,347

NIP-256

second value which is higher than said first value, the reducing decontamination agent in the first reducing decontamination tank where said radiation control value is the first value;

an oxidizing decontamination tank for decontaminating said metal member by using an oxidizing decontamination liquid; a carrier for transferring said metal member from said second reducing decontamination tank into said oxidizing decontamination tank, and said metal member from said oxidizing decontamination tank into said first reducing decontamination tank;

a reducing agent decomposer for decomposing a component contained in the reducing decontamination agent of the reducing decontamination tank where said radiation control value is the highest out of the reducing decontamination tanks connected by said tube; and

a washing tank for washing said reducing decontamination agent deposited on said decontaminated metal member.

5. (Currently Amended) A radioactive substance decontamination apparatus according to Claim 4, further comprising a second tube for transferring an oxidizing decontamination agent in from said oxidizing decontamination tank to any of said multiple reducing decontamination tanks.

U.S. Serial No. 10/078,347

NIP-256

6. (Currently Amended) A radioactive substance decontamination apparatus according to Claim 4, further comprising a second tube for transferring an oxidizing decontamination agent in from said oxidizing decontamination tank to a the reducing decontamination tank where said radiation control value is the highest out of said reducing decontamination tanks.

7. (Currently Amended) A radioactive substance decontamination apparatus according to Claim 1, further comprising multiple oxidizing decontamination tanks for decontaminating said metal member using an oxidizing decontamination agent;

~~said radioactive substance decontamination apparatus further characterized in that wherein~~ said carrier immerses said metal member in said oxidizing decontamination tank in the process of carrying said metal member from the reducing decontamination tank where said radiation control value is the highest, to the reducing decontamination tank where said radiation control value is the lowest, while immersing said metal member in the descending order of said radiation control value.

8. (Currently Amended) A radioactive substance decontamination apparatus according to Claim 1, further

U.S. Serial No. 10/078,347

NIP-256

characterized in that, that:

said carrier is designed to carry multiple said metal members, and, when carrying said metal members one by one, it immerses the second metal member in the a tank other than the one where the first metal member is immersed.

Claims 9-13 (canceled).

14. (Currently Amended) An A radioactive substance decontamination apparatus according to Claim 4, further characterized in that:

at least one of a protective barrier, protective cover and gutter is provided between said reducing decontamination tanks, and/or between and said reducing decontamination tank and said oxidizing decontamination tank, or between said reducing decontamination tanks and between said reducing decontamination tank and said oxidizing decontamination tank.